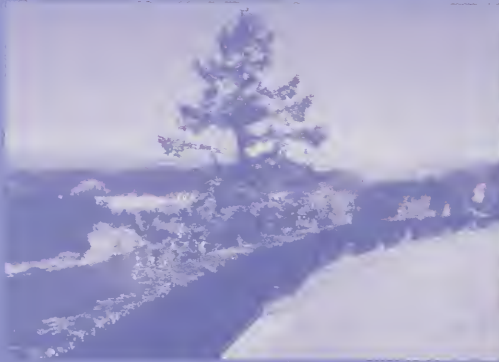
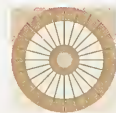


DESIGN FOR TRANSPORTATION NATIONAL AWARDS 2000



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U.S. DEPARTMENT OF TRANSPORTATION



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On behalf of the United States Department of Transportation, and poised at the beginning of a new century and new millennium, I am proud to announce the winners of the Transportation Design National Awards Program 2000. This awards program encourages design excellence by recognizing outstanding designs and honoring those who created them.

We believe that design excellence is one of the most effective means of achieving an efficient and effective transportation network. By recognizing exceptional transportation design we hope to encourage awareness of the benefits of quality design, highlight notable examples and stimulate development that enhances the quality of life in our nation.

The award-winning projects illustrated here demonstrate the enormous value that excellent design brings to the experience of travel. All are innovative in both design and execution. And innovation is key to the success of America's transportation systems of the 21st Century. Transportation is about more than concrete, asphalt, and steel, it is about people. Innovation in transportation can help assure that our people lead safer, more prosperous, and more fulfilling lives.

So it is with great pleasure that we acknowledge this year's winning projects and we commend their designers and sponsors. We urge everyone in the transportation community to follow the example of innovation they have given us by employing design excellence in every project.

A handwritten signature in brown ink, reading "Rodney E. Slater", is positioned above the printed name. The signature is fluid and cursive, with a prominent initial "R" and a stylized "S".

Rodney E. Slater
Secretary of Transportation

JURY REPORT

From more than 260 submissions from across the United States, the Design for Transportation National Awards 2000 jury is pleased to present the following 11 projects as Honor Award winners and 27 projects as Merit Award winners. These projects represent outstanding design thinking and execution. They deserve wide recognition and study as exemplars to guide future projects of similar purposes. The jury salutes the engineers, architects, landscape architects and planners; the sponsoring and coordinating agencies; the builders; and all those who contributed to such meritorious achievements in the field of transportation planning and design.

Initially, the jury was divided into three sub-juries, separately examining submissions in three broad categories: 1) architecture, historic preservation and adaptive use; 2) engineering, energy conservation, technology and systems; and 3) urban design and planning, landscape architecture, art and graphic design and special emphasis. Then the entire jury reconvened to review and agree upon the final selection of awards. Through a process of nomination, debate, and consensus building across design disciplines, the jury strove to articulate some general perspectives on transportation facilities design, in addition to recognizing exemplary work.

Few things are more essential to cities and neighborhoods—indeed, to virtually any form of contemporary settlement—than well-functioning transportation systems. The contemporary world is an increasingly mobile one, requiring evermore-responsive ways of transporting people and goods. Yet, the optimization of mobility pursued as an independent variable, separate from the complex and overlapping web of other urban systems, ultimately works against healthy communities. One of the great planning lessons of the last decade or more, exhibited in many, but not all, of the submitted entries is this insight—engineering criteria alone are not sufficient city-making tools. Transportation infrastructure should facilitate and assist in city building, but not dictate (or limit) the way we live and enjoy life in our communities.

While recognizing exceptional technical achievement, the jury sought to identify those projects that contributed more broadly to livability, sustainability, economic and cultural growth, and the enhancement of the shared environment—both human and natural. Evidence of integrated thinking and the goal to solve more than one problem were highly valued. Lastly, the jury sought out projects that appealed to the heart and the eye, moving us by virtue of their beauty, ingenuity, or humanitarian purpose.

While one thinks of transportation projects as large and complex undertakings, and many are, several quite modest projects stood out for creatively addressing multiple objectives. The need for a culvert along a section of US Highway 83

Few things are more essential to cities and neighborhoods — indeed, to virtually any form of contemporary settlement — than well-functioning transportation systems. The contemporary world is an increasingly mobile one, requiring evermore-responsive ways of transporting people and goods.

The engineering world finds itself in a transitional period in which emphasis is shifting from hardware to systems design, from adding lanes, for example, to traffic management technology.

South in Webb County, Texas, led to the creation (at a cost of \$25,000) of a bat habitat for 250,000 bats, the first of its kind in the United States. A statewide code for “live” snow fence designs in Minnesota achieves a unique combination of maintenance reduction of snow removal, an attractive landscape, and a winter form of environmental art. The occasion of a new commuter station built near the remains of an old railroad roundhouse allowed a small archeological park to be built of reassembled fragments of the old roundhouse in Whitman, Massachusetts.

Preserving evidence of our nation's heritage—including historic transportation infrastructure—seems increasingly important amidst the constant pressure to modernize, enlarge, and build anew. How marvelous to be able to recognize two preservation achievements, both in New York, at fundamentally different scales: the restoration of the Grand Central Terminal in Manhattan, the epitome of the monumental civic landmark, and the restoration of the almost domestically-scaled Forest Hill Station in Queens, the pre-car port-of-entry to one of the seminal turn-of-the-century suburbs, Forest Hill Gardens. Amidst many impressively restored and renovated bridges, stations, structures, and trails, the Columbia River Gorge Highway State Trail in Oregon stands out as a unique adaptation of an abandoned and largely destroyed 1920's scenic highway into over 10 miles of rehabilitated roadway for non-motorized recreational use.

The engineering world finds itself in a transitional period in which emphasis is shifting from hardware to systems design, from adding lanes, for example, to traffic management technology. An impressive example of this, and the project that most directly addressed the Department of Transportation goal of enhancing international trade and competitiveness, is the US Coast Guard Vessel Traffic Services System. It enables ships to safely negotiate the Lower Mississippi River in closer proximity to one other. In honoring this project, the jury encourages innovation in “intelligent transportation.”

Another encouraging trend was the number of intermodal stations and light-rail systems submitted. Still loving their cars to be sure, Americans have, nonetheless, built 12 transit systems since the 1970's; and currently, there are five under construction, six-or-so in design, and nearly two-dozen more in preliminary concept stages. A decade-or-two ago few would have predicted the extent or success of the Dallas Area Rapid Transit system, whose imaginatively designed light rail stations deserve honors, and hopefully will inspire others around the country.

As we endeavor to re-calibrate our national transportation priorities to accommodate alternatives to the car, perhaps eventually achieving actual reduction in auto-vehicle miles traveled, we also undertake the healing of transportation-induced urban wounds. The I-91 Founders Bridge and Riverfront in Hartford, Connecticut, is an excellent example of covering a portion of an interstate highway to create a public space that reconnects the

downtown and its riverfront. Few cities have healed larger wounds than Providence, Rhode Island, whose River Relocation Project could more accurately be called a “river uncovering project,” exposing a portion of the Providence River from beneath roadways, traffic rotaries, parking lots, rail yards, and similar indignities added over the years.

Lastly, the jury took delight in recognizing architectural excellence. Memorable spaces, powerful imagery, ingenuity in giving form to engineering, and the innovative use of light, textures, and materials all leave strong impressions on one’s experience of the world. Good design does matter. Just ask those who travel through the new Ronald Reagan Terminal in our Nation’s capital; cross the border in Calexico, California, emerge from the Los Angeles subway at the Red Line Station at Santa Monica Boulevard and Vermont Avenue, or use the Center City Park and Ride Facility in Des Moines. Why shouldn’t transportation facilities that serve many, many people also aspire to be works of civic art?

Several organizations that were recognized in the last DOT design awards competition with awards for outstanding design programs submitted new program works. The jury felt, however, that emphasis should be given to those projects and programs that were not previously recognized. At the same time, the jury would like to commend the New York Metropolitan Transportation Authority’s Arts for Transit program, which was given an Honor Award in 1995, for the consistent high quality of its projects. The commitment of the MTA to include both permanent and temporary art projects in its facilities stands out as a national model.

Despite an overall satisfaction with the award submissions and pride in presenting the 38 award winners, the jury expressed several concerns and suggestions. Too few submissions dealt directly with issues of sustainability, which enables development to occur in a more environmentally sensitive manner. Sustainability should be a stronger criterion in future award programs. While there were several examples of well-integrated design and public art, more frequent and better collaborations are needed. The urban design submissions were less compelling overall, perhaps warranting a broader outreach to potential submitters, or revamping submission requirements to put more emphasis on describing urban design goals and strategies. Given the increasing national attention to issues of livability, conservation, and smart growth, the jury recommended that the Department of Transportation consider instituting a joint awards program emphasizing livability with the Department of Housing and Urban Development. The jury also wondered whether the five-year interval between award programs limits the impact of the program. Overall, however, the jury commends the Department of Transportation for its leadership in sponsoring this awards program as a vehicle to champion the public’s commitment to wise and innovative design.

Memorable spaces, powerful
imagery, ingenuity in giving form
to engineering, and the innovative
use of light, textures, and materials
all leave strong impressions on
one’s experience of the world.
Good design does matter.

JURY MEMBERS

Alex Krieger (Chair)

Architecture, Interior Design, and Historic Preservation

Alex Krieger (*Chair*)
Hanan A. Kivett
Kate Diamond
Donald Stull
Mary Means

Engineering

James Poirot (*Chair*)
John M. Kulicki
M. John Vickerman
Jonathan Esslinger
Patricia Galloway

Urban Design, Planning, Landscape Architecture, Art and Graphic Design, Special Emphasis

Elizabeth Moule (*Chair*)
Weiming Lu
Lynda Schneekloth
Wendy Feuer
Roger K. Lewis

*Jury Photograph
(From Left)*

Front Row:

Mary Means
Elizabeth Moule
Patricia Galloway
Kate Diamond
Wendy Feuer
Lynda Schneekloth

Back Row:

James Poirot
John Vickerman
Weiming Lu
Hanan Kivett
Jon Esslinger
Donald Stull
Roger Lewis
John Kulicki
Alex Krieger



H O N O R A W A R D S

Admiral Clarey Bridge

Pearl Harbor, Oahu, Hawaii

Grand Central Terminal

New York, New York

Dallas Area Rapid Transit

Dallas, Texas

Historic Columbia River Highway State Trail

Columbia River Gorge, Oregon

Terminal B/C,

Ronald Reagan Washington National Airport

Washington, D.C.

River Relocation Project

Providence, Rhode Island

Westside Light Rail

Portland, Oregon

United States Port of Entry

Calexico, California

Memorial Tunnel Fire Ventilation Test Program

Charleston, West Virginia

The Bat Dome Culvert

Laredo, Texas

Vessel Traffic Services Project

Lower Mississippi River

The color sidebars accompanying project descriptions are a selection of jury comments.

H O N O R A W A R D S



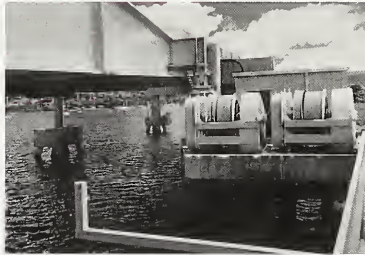


ADMIRAL CLAREY BRIDGE

PEARL HARBOR, OAHU, HAWAII

The Admiral Clarey Bridge combines floating bridge design with fixed bridge design in a project that advances the engineering profession. The Clarey Bridge improves the access to Ford Island where approximately \$1 billion of development is planned. The bridge incorporates the world's largest openable floating concrete draw span, 930 feet, into a low profile structure that does not detract from the nearby U.S.S. Arizona memorial.

In addition to the main 650-foot wide navigation channel for large ships, a portion of the fixed structure is raised to provide a 100-foot wide, 30-foot high small ship channel. The structure also incorporates sidewalks and bike lanes along with an in-water embankment at one approach that improved an existing waterfowl habitat. The Admiral Clarey Bridge, completed ahead of schedule and under budget, permits the U.S. Navy to utilize Ford Island to its fullest extent, maintain national security, and uses innovative technology while maintaining aesthetics of its surroundings.



Pearl Harbor, Hawaii – the site of the U.S.S. Arizona Memorial that honors those who perished in the attack leading to the U.S. involvement in World War II – is not only a historic landmark, but an active harbor and center of the U.S. Naval operations in the Pacific. Most of the Naval base consists of dense development located on the shore of Pearl on the island of Oahu. However, the base also includes

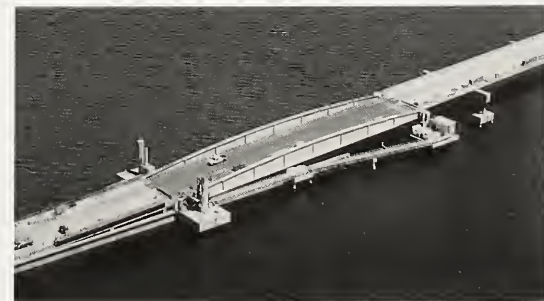
Ford Island, a 450-acre former World War II airfield in the middle of the harbor.

In order to develop the under utilized Ford Island for much needed housing and administrative facilities, the Navy authorized the design and construction of the Admiral Clarey Bridge. The 4,700-foot long bridge connects the northeast corner of Ford Island with the island of Oahu.

To provide an unobtrusive crossing and a navigation channel for large ships, engineers designed a unique combination fixed and floating bridge. The bridge's

930-foot long floating concrete draw span (the world's largest openable span) is capable of retracting to create a 650-foot wide navigation channel.

Opened to traffic ahead of schedule in April of 1998, the bridge was named after Admiral Bernard “Chick” Clarey, a decorated World War II submarine commander and later Commander-in-Chief of the Pacific Fleet at Pearl Harbor. Notable for its innovative structure and environmental sensitivity, the Admiral Clarey Bridge has enhanced safety, mobility, economic growth and national security while demonstrating technical virtuosity and economy.



CREDITS:

Dillingham-Manson

Parsons Brinckerhoff Quade & Douglas, Inc.

Moffatt & Nichol Engineers

Edward K. Noda & Associates

GRAND CENTRAL TERMINAL

NEW YORK, NEW YORK

A magnificent example of reclaiming the best of our history to help make a better future.

This impeccable and exhaustive restoration not only reclaims the glories of this landmark structure, it significantly upgraded public safety and accessibility. The entire process from master planning to historic restoration, to incorporation of modern systems integration, to the retail revitalization plan was exemplary.

CREDITS:

Metropolitan Transportation Authority
Metro-North Railroad
GCT Venture, Inc.
Beyer Blinder Belle Architects & Planners LLP
Harry Weese & Associates
STV/Seelye Stevenson, Value & Knecht

After decades of deferred maintenance, this landmark building was crumbling. The roof leaked, stonework was chipping away and structural steel was rusted. Pollution and dirt had stained surfaces and commercial intrusions blocked out natural light. But in 1983 a new building operator took over operation of the building. In 1988 a design team was hired to develop a master revitalization plan. Completed in April 1990 the master plan was based on blending of historic preservation and modern change. Building on the strengths of the terminal's original architecture yet responding to the changing nature of its transportation role, the objective was to combine the needs of the user with income-producing revenue.

As part of a general conditions survey, a comparative microscopical paint and color analysis of the sky ceiling revealed a great deal of information about the ceiling's original colors and its existing conditions. In 1991, cleaning tests were carried out on a portion of the ceiling in the southeast corner, near the figure of Aquarius. The striking contrast between the blue and gold brilliance of the cleaned portion, and the dim, dirty



green and brown of the surrounding portion gave the illusion that a bright light was shining on the cleaned surface. To clean the entire ceiling an elaborate moveable scaffold was built. Completed in 1997, a fiber optics star lighting system was also installed to replace the old network of 40-watt incandescent bulbs and suspended glass dowels.

The retail revitalization plan, managed by a joint venture of two firms, has extensively improved the building's amenities. 170,000 square feet of new and improved retail and restaurant space features specialty stores and services, fine restaurants, a new Dining Concourse on the lower level and a fresh food market. Retail offerings have been designed to appeal to a broad clientele, ranging from tourists to commuters and pedestrians to neighboring office workers and residents. It is a carefully balanced mix of returning tenants, nationally known establishments, and New York-based merchants.





DALLAS AREA RAPID TRANSIT

DALLAS, TEXAS



DART's light rail stations exemplify how transportation can transform how a city thinks of itself. The system has tied together disparate areas, many of which have experienced revitalization or economic rebirth. The stations reflect genuine collaboration between multi-disciplined design teams and community committees. Each station is clearly part of a system, yet addresses a well-established set of criteria individualized to address neighborhood situations and needs. The simple vocabulary of arc elements, palette of materials, and integration of art makes the DART stations a model of city livability through design.

Several factors were considered in designing a prototypical station for DART's light rail transit system. Although a recognizable system-wide identity is essential, subtle variations with each location ensure that stations blend with their environment and reflect the character of the surrounding communities. Recalling the great train stations of 19th century Europe and the interurban stations of early 20th century America, the arcade design of the canopies creates a unique light rail transit environment by visually and physically unifying the station and successfully integrating the overhead power distribution wires for the electrically propelled train.

The arched canopies are constructed of curved structural steel trusses and a standing seam metal roof. The colors of the trusses and canopy, the design of the column cladding and the platform materials and patterns vary from station to station. By the nature of a prototypical station concept, some features, materials and colors are consistent throughout the DART light rail system. System-



wide, a balance of standardization and variability provides each individual station design choices of a wide range of materials and colors. Each station's individuality is attained through the Art and Design Program. This process allows for the architectural enhancement of each station to promote the adjacent context of each site.

Landscape architectural design at each station is unique and site-specific for that station. The landscape architectural goals of environmental sensitivity and design creativity establish a station that projects a sense of quality and visual identification with DART and the community. The station's landscape architecture, facilities architecture, and art are interwoven to create sense of place, destination and interest.

CREDITS:

Dallas Area Rapid Transit

Huitt-Zollars, Inc.

Hellmuth, Obata &
Kassabaum, Inc.

HISTORIC COLUMBIA RIVER HIGHWAY STATE TRAIL

COLUMBIA RIVER GORGE, OREGON



A marvelous adaptation of the nation's oldest scenic highway, renovated and given new life as a recreational trail for cyclists, bladders, and walkers. Overcoming the challenges of topography and unstable soils took exceptional commitment by the Oregon Department of Transportation. Perhaps the biggest challenge was the rehabilitation of the Mosier Twin Tunnels, involving innovative ways of protecting visitors from landslides under nearby basalt cliffs. ODOT also succeeded in restoring many linear feet of masonry guard walls and the original 1920 two-rail wooden guard fence.

The Historic Columbia River Highway (HCRH), between Portland and The Dalles, Oregon, was a technical and civic achievement of its time, successfully joining ambitious engineering with sensitivity to the surrounding natural landscape of waterfalls, basalt outcroppings, and stunning vistas in the Columbia River Gorge.

Constructed from 1913 to 1922, the HCRH has gained national significance for its early use of modern highway construction technologies. It is also the oldest scenic highway in the United States. Since 1995, ODOT has undertaken work on three HCRH State Trail segments, which provide over ten miles of rehabilitated roadway for non-motorized recreational uses.

New trailheads include parking areas and information kiosks. A 1996 Master Plan recommended returning the HCRH, both drivable and trail portions, to its 1922 appearance, when the route was completed. The HCRH is listed in the National Register of Historic Places; therefore, project work on the highway follows the Secretary of Interior's Standards for the Treatment of Historic Properties.

Work on the trail included repairing or replacing reinforced-concrete spindle-and-cap parapet walls and repointing masonry guard walls on two half-viaducts. The project also consisted of a precast concrete tunnel under Interstate 84 and a trailhead lot in Cascade Locks. Further project phases involved rehabilitating 6 1/2-miles of roadway bypassed in 1953. One of the greatest obstacles on this project was reopening the Mosier Twin Tunnels and making them and nearby roadway sections safe for recreational use.

The HCRH State Trail segments, especially the 6.5-mile section between Hood River and Mosier, provide a separated path that connects Gorge communities. The route's original maximum 5 percent grade requirement makes it ideal for the visitors of varying physical abilities.



CREDITS

Oregon Department
of Transportation

Rob Dortignacq, Architecture,
Family of Railing Systems

Federal Highway Administration,
Western Federal Lands
Highway Division

Office of Bibi Gaston

HNTB

URS Greiner Woodward/Clyde

KPFF

Quatrefoil, Inc





TERMINAL B/C

RONALD REAGAN WASHINGTON NATIONAL AIRPORT, WASHINGTON, D.C.

The New B/C Terminal is a significant contribution to the region's mobility while providing an appropriately scaled image for the Nation's Capital. The project design and engineering team overcame numerous hurdles to achieve design quality—constrained site, ongoing airport operations, and rigor of design review process in federal sphere.

Use of natural light, terrazzo and printed structural elements creates a lively, uplifting atmosphere for air travelers—minimized traditional “hassle” and anxiety in short haul air travel—functions with high degree of efficiency/passenger/user comfort. Complete integration of existing Metro rail station into function of airport terminal provides seamless intermodal connection—as major goal of U.S. DOT in promoting public transit.

The Ronald Reagan Washington National Airport is situated on the southwest side of the Potomac River with direct views to the Federal Core and the Mall. Located between the south and north hangar lines, the new 35-gate terminal comprises approximately 1 million square feet, including a 1600-foot concourse designed to accommodate 16 million passengers per year.

Part of the airport's \$1 billion Capital Development Program, the terminal is designed to enhance the efficiency and experience of the airport for both the traveling public and the airlines. The design effort focused on solving the problem of creating an appropriate “gateway” to the Nation's Capital while simultaneously maintaining and enhancing operations at one of the country's busiest airports.

The inter-modal connections of roadways, Metrorail rapid transit lines, and aircraft were all set elements that had to be factored into the design. Stringent dimensional restrictions, based on vehicle and aircraft dimensions, as well as operational and safety clearances, determined the height, depth and location of the building and influenced its overall footprint.

The design is based on a 45' x 45' repetitive structural steel bay that establishes scale, flexibility and architectural proportions. Each bay is a dome topped with an 18-foot diameter glass oculus. The dome serves to establish a connection with the civic architecture of the Capital. Large expanses of

glass enclose the east side of the concourse, further reinforcing the sense of scale and orientation for passengers and providing magnificent views of the airplanes and the river beyond.



CREDITS:

Metropolitan Washington Airports Authority	Horton Lees Lighting Design, Inc.
Ronald Reagan Washington National Airport	John J. Christie & Associates
Cesar Pelli & Associates	Ricondo & Associates
Leo A Daly	Robinson and Associates
Pierce Goodwin Alexander & Linville	Syska & Hennessy
Morganti Incorporated	Urban Engineers, Inc.
Dick Corporation	Crovatto-Miotto Mosaics
Parsons Management Consultants	Fireform Porcelain
Balmori Associates, Inc.	Architectural Glass Design, Inc.
CBM Engineers, Inc.	Architectural Glass Art, Inc.

RIVER RELOCATION PROJECT

PROVIDENCE, RHODE ISLAND



While this project is a relocation of the waterway, it really started in 1979 to relocate the rail tracks. This provided new land for the city. This project is about community enhancement and increased sustainability; it is about maximizing the investments made in existing cities to re-attract residents and businesses. This kind of project could well contribute to the slow down of suburban sprawl.

The project fully integrates architecture, urbanism and arts programming to make an extraordinary place in the city — to provide it a new focus that will serve as an armature for human interaction. This project improves pedestrian and automobile access in a series of wonderfully scaled places that are appropriately designed to be continuous with the city's fabric.

During the late 1970's, planners began to focus on some of the long-standing urban design issues in Downtown Providence, Rhode Island. Elevated rail tracks and parking lots divided Downtown from the State House and Smith Hill. The Providence River, which flowed between Downtown and the East Side, was covered over with acres of roadway decking. Cross-town traffic, as well as that from interstate access ramps, converged at the roadway decking and became congested and dangerous because of the highly irregular and ill-defined roadway pattern. Pedestrian circulation under the railroad tracks and across the roadway decking was unpleasant and dangerous.

The Environmental Assessment of the Waterplace and Providence River and Deck portion was conducted by the Rhode Island Department of Transportation and completed in August 1984. The project was given the official name of Memorial Boulevard Extension Project because the plan included removing the decking. Opening up the Providence River, and extending Capital Center's Memorial Boulevard from where it ended at Steeple Street (Memorial Square) south to Crawford Street. In time the project became known as the River Relocation Project.

With the completion of the \$60 million project, over 11 acres of urban riverfront parks have been created for the enjoyment of the people of Providence and State of Rhode Island. Boats navigate to and depart from the Waterplace, utilizing nearly a mile of downtown river channels. Nearly 1.5 miles of riverwalks are available for pedestrians and joggers. An amphitheater and smaller plazas provide places for music, theater, and other forms of entertainment to be performed.



CREDITS:

Rhode Island Department of Transportation
William D. Warner, Architects & Planners
Maguire Group Inc.





WESTSIDE LIGHT RAIL

PORTLAND, OREGON

From the project's inception, a collaborative approach with engineers, architects and artists brought distinguishing character to the project which serves a variety of communities, institutions, neighborhoods and businesses. Project designers, working with local citizens, created a united system design that conveys the special character of each station and the community the train passes through.

The system stations and station components—handrails, canopies, ceilings, signage—and integrated artwork are inventively composed and skillfully crafted. Equally important, they invoke the special character of Portland's urban and natural environments through use of both traditional and high-tech materials, forms and landscaping. Yet each of the four stations is unique in aesthetic character and identity. This project compellingly illustrates what is possible when architects, artists, engineers and contractors, along with government officials, collaborate and aspire to the highest of design standards.

Portland's Westside Light Rail extends the city's successful eastside light rail system (MAX) 18-miles from downtown Portland to Hillsboro, the County seat of Washington County and the heart of Oregon's fast-growing Silicon Forest. The resulting 33-mile east-west line connects Hillsboro to the City of Gresham on Portland's eastside and provides additional mobility for residents through increased access to the region's established bus service.

From the project's inception, one of the client's primary goals was the creation of a transit line of architectural and functional distinction. A collaborative approach with artists, architects and engineers working together brought distinguishing character to the stations which serve a variety of communities, institutions, neighborhoods, and businesses. Another significant goal was the effective and efficient use of federal, state and regional dollars used to fund the project. The nearly billion dollar Westside MAX project was Oregon's largest public works project to date and was completed on time and within budget.

Internationally, MAX's development of the high-speed, low-floor car has provided opportunities to make accessible a rail system that fits in almost any right of way context. Strategically, the Westside has provided a new forum in which Tri-Met can lead the redevelopment of the communities it serves. Culturally, MAX continues to shape Portland communities as it encourages them to build and enables

them with improved mobility and quality of life. The project's success is evidenced by the public's response whose patronage continues to exceed projections.

CREDITS:

Tri-County Transportation District of Oregon

Parsons Brinckerhoff Quade & Douglas, Inc.

Zimmer Gunsul Frasca Partnership

OTAK, Inc.

BRW, Inc.

LTK Engineering Services



UNITED STATES PORT OF ENTRY

CALEXICO, CALIFORNIA



The project involves the sophisticated use of forms and materials to reinforce function, and an innovative use of fabric structures to provide natural light, weather protection and image. Project design and layout exhibits a sensitivity to the physical desert environment and a dignified image reinforcing the significance of the boarder crossing. The total composition reflects high level of design competency and use of quality materials – provides further incentives to achieve design quality on similar facilities.

This border station accommodates a great flow of people and goods moving across the border in both directions, and will ultimately serve as a catalyst for future development of the surrounding area. Located 125 miles east of San Diego on the United States/Mexico border, it is comprised of five major buildings totaling 75,000-square feet, with additional 185,000-square feet of inspection area.

In order to respond to the desert climate as well as establish a strong sense of place, the design features Teflon-coated fiberglass, tensile roof structures which provide shaded, open-air canopy areas for the processing of pedestrians and bus passengers. These fabric roof structures are reminiscent of the tents and covered wagons that served to establish the character of this region of the country. They cut down on energy expenditure by diffusing sunlight into work areas and reflecting radiant heat.

The inspection facilities have been sensitively designed to protect employees from the harmful effects of vehicular exhaust that is a result of the high volume of traffic passing through this facility.

The buildings exterior utilizes a combination of concrete block, poured-in-place concrete, and precast concrete. A focal wall in the main building is articulated with subtly varying bands of limestone. A freestanding row of abstract monumental columns marches across the entry plaza through the main building, suggesting movement and continuity between the United States and Mexico.



CREDITS:

General Services Administration,
Region 9, Design and Construction

Dworsky Associates

Martin & Huang International





MEMORIAL TUNNEL FIRE VENTILATION TEST PROGRAM

CHARLESTON, WEST VIRGINIA

In a "first-of-its-kind" program, the transportation reuse of the abandoned memorial tunnel has dramatically increases the knowledge of the tunnel design professional through full-scale fire ventilation testing.

The project will usher in a new era of knowledge and increased efficiency in tunnel ventilation systems. New approaches to permit innovative reconfiguration and operation of tunnel ceiling and jet-fan-based ventilation is commendable.

In a "first-of-its-kind" program, engineers turned the abandoned Memorial Tunnel near Charleston, West Virginia into a full-scale fire ventilation test facility. The Memorial Tunnel Fire Ventilation Test Program (MTFVTP) evaluated the effectiveness of different types of ventilation systems and different systems capacities to control smoke and heat in tunnels during a fire.

Sponsored by the Federal Highway Administration and the Massachusetts Highway Department, the MTFVTP is the first testing program of its kind ever performed at this scale. Marking a new era in the design of ventilating systems for tunnels, the data collected is now contributing to new areas of research that will lead to new design tools and new construction techniques.

Live fire tests began in September 1993 and tests program findings were issued in 1995. From improved public safety to lower construction costs, data from the program is being used to set new standards in the design of road tunnel and subway ventilation systems.

The wealth of data collected in the program will enable tunnel designers, operators and firefighters to develop analytical methods, standards and operating procedures for fire emergencies within road tunnels. The data will also permit the design of subway station ventilation systems that perform effectively, allow safe evacuation of passengers in the event of subway fires, and reduce capital costs.



CREDITS.

Massachusetts Highway Department/
Federal Highway Administration

Bechtel/Parsons Brinckerhoff

Innovative Research, Inc.

THE BAT DOME CULVERT

LAREDO, TEXAS



The Bat Dome is significant in that it went far beyond traditional engineering thinking by addressing multiple purposes including the sustainability of the environment. Collaboration of engineers and biologists resulted in an inexpensive solution to a major conservation issue. This first of its kind design modification of a typical concrete culvert not only will preserve a valuable ecological role of the bat in controlling crop damaging insects, but will provide a future model to engineers as to how conservation and engineering can be combined to provide both a practical transportation function while meeting environmental needs.

In recognition of the large numbers of bats that inhabit many of Texas' bridges and structures, and in an effort to answer the question of engineers and biologists, the Texas Department of Transportation (TxDOT) Bats and Bridges Study was begun in 1994 in collaboration with Bat Conservation International, based in Austin, Texas. During and after TxDOT Bats and Bridges Study, discussion often centered on developing inexpensive methods to potentially increase bat habitat in bridges and answer the additional questions that occur during any research project.

The Laredo District, in 1999, recognized the economic and ecological value of bats and agreed to build the first permanent transportation structure with consideration for purposefully attracting beneficial, insectivorous bats. The Bat Dome in Laredo is the first large scale culvert in the United States that has been modified and constructed to purposefully accommodate bat habitation while performing its intended function of moving storm water and keeping the roadways above passable during a rainstorm.

Bridge design engineers at TxDOT modified the construction plans in 1999 for a culvert lengthening already planned in Webb County, Texas. Based on observations made during the Texas Bats and Bridges Study, the probability of bat habitation in a culvert located in this county was higher than any other county in Texas.

Further consideration for this location included an investigation of the historic high water mark and the flooding potential of this culvert system. Care was given to not flood or drown a bat colony



that was purposefully attracted. The eventual estimated colony size based on the texture square foot of protected concrete surface provided is predicted to possibly exceed 200,000 bats.

CREDITS:

Texas Department of Transportation, Bridge Division

Texas Department of Transportation, Laredo District





VESSEL TRAFFIC SERVICES PROJECT

PORTS AND WATERWAYS SAFETY SYSTEM, LOWER MISSISSIPPI RIVER

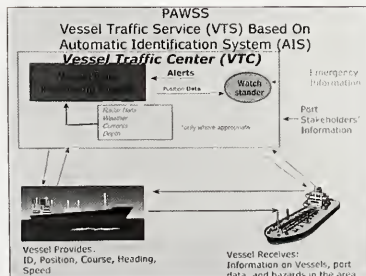
The Ports and Waterways Safety System (PAWSS) uniquely combined achievement in safety and economic growth and trade. As the world's largest automatic identification system based vessel traffic system encompassing over 285 miles of the lower Mississippi River, the PAWSS will provide significant capabilities in monitoring and proactively disseminating valuable information in the marine operating environment, increasing safety in one of our most significant national waterway systems. The PAWSS holds the promise of increasing capacity in this important waterway without increasing existing workload or distracting the mariner, thereby enhancing U.S. competitiveness and efficiency in our marine transportation system.

The vessel Traffic Service (VTS) system of the Ports and Waterways Safety System (PAWSS) project is a national transportation system that collects, processes, and disseminates information on the marine operating environment and maritime vessel traffic in major U.S. ports and waterways. The PAWSS project mission is implemented by monitoring and assessing vessel movements within a Vessel Traffic Service Area, exchanging information regarding vessel movements with vessel and shore-based personnel, and where situations warrant, providing advisories to vessel masters.

The VTS system at each port consists of a Vessel Traffic Center (VTC) that receives vessel movement data from the Automatic Identification System (AIS), surveillance sensors, other sources, or directly from vessels. Meteorological and hydrographic data is also received at the VTC. Automatic data processing equipment is used to provide operators with decision support in accomplishing the PAWSS project mission.

The world's largest AIS based Vessel Traffic Services Area will encompass over 285 miles of the Lower Mississippi River. At this time the system has a working base of AIS transponders, radar and voice communications sensors.

Why the lower Mississippi River? On average, approximately 650 ships from more than 45 different countries call on ports of the lower Mississippi River per month. Coupled with more than 2500 barge movements monthly, waterborne commerce is a critical link in the inter-modal chain. This area accounts for over 300 million shorts tons of cargo, over 58 million short tons of U.S. grain exports (43% of all U.S. grain exports) and over 150 million short tons of foreign commerce handled annually.



CREDITS:

U.S. Coast Guard, Acquisition Directorate,
Vessel Traffic Services Project Office

SETA Corporation

Lockheed Martin Naval Electronics
and Surveillance Systems, Syracuse

Ross Engineering Company

MarITEL, Marine Communications System

National Telecommunications and Information
Administration

M E R I T A W A R D S

Center Street Park and Ride Facility
Des Moines, Iowa

Chesapeake and Delaware Canal Bridge
St. Georges, Delaware

Fred Hartman Bridge
Houston, Texas

**Cleveland Hopkins International
Airport-Continental Airlines**
Cleveland, Ohio

George P. Coleman Bridge Replacement
Yorktown, Virginia

**Edmonds Ferry Terminal,
Overhead Passenger Walkway**
Edmonds, Washington

Bridge the Divide and Cap I-405
Portland, Oregon

**Reconstruction of I-91,
and Construction of Riverfront**
Hartford, Connecticut

Crosswinds Marsh
Sumpter Township, Michigan

Interstate Route H-3
Oahu, Hawaii

Maritime Off Ramp
Oakland, California

Main Street Overcrossing
Hillsboro, Oregon

**Glenmont Metrorail Station
and Parking Garage**
Glenmont, Maryland

**Vermont/Santa Monica/City College
Metro Rail Station**
Los Angeles, California

**Connecticut Scenic Roads Corridor
Management Planning Project**
Connecticut

NC Scenic Byways Book
North Carolina

**Catching the Snow with Living Fences
(Design Guide)**
Minnesota

Thinking Beyond the Pavement
State of Maryland

**Historic Terminal A Rehabilitation
Project – Phase I**

Ronald Reagan Washington National
Airport, Washington, D.C.

Forest Hills Station Renovation
Forest Hills, New York

**The Preservation & Renovation
of the Georgian Court Bridge**
Lakewood, New Jersey

Celebrate the Century Express
Washington, D.C.

The Bike Stops Here
Los Angeles, California

MTA Metro Public Art Programs
Los Angeles, California

Yough River Trail Bridge
Ohiopyle State Park, Pennsylvania

Whitman Roundhouse Park
Whitman, Massachusetts

**Maps of the Nation's Capital
Through the Centuries**
Washington, D.C.

M E R I T A W A R D S



CENTER STREET PARK AND RIDE FACILITY

DES MOINES, IOWA



This project makes an elegant, formal piece of architecture out of the mundane function of a park 'n' ride. The beautiful detailing of simply durable materials, and strong formal massing make this building a valuable addition to the urban fabric. The pedestrian experience from car to bus is enriched through daylighting, landscaping and an enlivening ground floor retail and childcare center.

Like many cities, Des Moines is faced with increasing downtown parking and traffic congestion and air quality issues. Realizing that projected growth in downtown employment would exacerbate these problems, the City of Des Moines and Des Moines Metropolitan Transit Authority (MTA) conceived an intermodal transportation facility to be built one-half mile north of the central business district, as one critical step in reducing automobile trips into the downtown area.

In its design, this transportation facility was to incorporate a parking facility for 1800 vehicles, a shuttle bus station to carry commuters into the central city, and a daycare center with an open playground. One project goal was to design the facility to be an asset to the neighborhood. Making this goal a challenge was the facility's size-engulfing one full "superblock" north of the Des Moines central business district.

While the function of the building is to store vehicles, the first impression the public receives is that it is a "people place." The location of the Park and Ride's daycare center with its park-like setting, and the combination of warmth and openness of the shuttle station provide a welcome, inviting environment to those who move through or spend time there.

The great success of the Center Street Park and Ride and the LINK shuttle services has led the City of Des Moines and the MTA to continue their partnership. Plans are now being developed for park-and-ride facilities on the south and west sides of the central business district.



CREDITS:

Des Moines Metropolitan
Transit Authority

Herbert Lewis Kruse Blunk
Architecture

Desman Associates

Krishna Engineering

Taylor Ball

City of Des Moines

CHESAPEAKE & DELAWARE CANAL BRIDGE

ST. GEORGES, DELAWARE

The St. Georges, Delaware Bridge revolutionizes the design of concrete segmental bridges and has the longest concrete span in the Northeast United States at 750 feet. The aesthetically pleasing cable-stayed bridge utilizes pre-cast delta frames, has a single plane of stays supported by a single pylon. The innovative design features will be used many times in the future to obtain the economical and aesthetically pleasing results found in this bridge.



CREDITS:

Delaware Department
of Transportation

Figg Engineering Group

Tilden, Lobnitz, & Cooper, Inc.

Law Engineering

David A Mintz, Inc.

Boundary Layer
Wind Tunnel Laboratory

The Chesapeake & Delaware Canal Bridge in St. Georges, Delaware is an outstanding example of the advancement of concrete engineering technology in bridge design and construction. This bridge was built to meet a growing transportation need for a north-south relief route connecting I-95 to the existing Route 1 at Dover, Delaware.

The C & D Canal Bridge has the longest concrete span in the Northeast at 750ft. The new bridge is a precast segmental structure 4,650ft in length, 127ft wide, with 150ft typical approach spans. A key aspect of the bridge is the 750ft cable-stayed center-span crossing of the canal. It is the first concrete cable-stayed bridge in the Northeast.

The precast delta frames in the main span unit are the most unique design feature of the bridge. The delta frame serves several important purposes. One, it allows the use of the same size box girder for the entire length of the bridge- from abutment to abutment; two, it allows the use of two smaller boxes in lieu of one large one. The economies in construction inherent in these two features have revolutionized concrete segmental construction to make it the most cost-effective construction for long span bridges.

FRED HARTMAN BRIDGE

HOUSTON, TEXAS

The double diamond towers of the Hartman Bridge are its identifying feature and combine the best attributes of functionality and aesthetics. The engineering function of enabling the towers to resist the high hurricane wind loads required by the location of the bridge through efficient truss action resulting from the triangular panels is beautifully expressed in the resulting shape. Aesthetic form truly follows function in this design, which illustrates that less truly can be more.

The crossing provides a needed upgrade to regional runaway traffic and handling of hazardous materials by replacing a functionally obsolete tunnel. The additional traffic capacity required a relatively wide bridge. The double diamond tower shape facilitates the accommodation of the required number of traffic lanes.

The Fred Hartman Bridge is a twin-deck cable-stayed bridge spanning a distance of 1,250 feet across the Houston Ship Channel. It replaces the old Baytown Tunnel and eliminates a major traffic bottleneck. As a hurricane evacuation route, the Fred Hartman Bridge is capable of carrying eight times the traffic volume as the old tunnel. An efficient, direct link across the channel is critical to area mobility and access among the various components of the refinery infrastructure. Whereas the old tunnel had become a “bottleneck,” as discussed above, the Fred Hartman Bridge provides extra capacity for anticipated traffic well into the predictable future.

New and innovative thinking characterized virtually all aspects of the Fred Hartman Bridge design. Whereas many major bridge designs are based on either a steel alternative or a concrete alternative, the Hartman Bridge represents a true blending of the two materials in a design which takes advantage of the inherent strengths and best uses of each. The use of dual roadways and twin towers in a “double diamond” configuration was a first for a U.S. cable-stayed bridge.



Separate studies of wind effects, commissioned through two independent resources, were used to verify the design's performance during hurricane wind conditions predictable in the Texas coastal area. Use of the concrete-steel composite design allowed the Fred Hartman Bridge to be as “light” as possible, while the double-diamond tower shapes serve to stiffen the overall frame of the light structure. The result is a spectacularly large, yet slender and graceful, structure which has become a Texas landmark.

CREDITS:

Texas Department of
Transportation, District 12
URS Greiner
Woodward Clyde

CLEVELAND HOPKINS INTERNATIONAL AIRPORT – CONTINENTAL AIRLINES

CLEVELAND, OHIO

Concourse D at Cleveland International Airport is a return to clarity of expressing the framing elements (or building systems) as architecture. It is the layering of past and present stylizations to create visual character and psychological response. This straightforward and flexible design is informed by an aesthetic of aviation, bridges, factories, lofts, and machines, transformed into a technologically forward-looking composition. The clarity of the passenger movement pattern from “curb to gate,” essential to ease anxiety and aid efficiency in airport design, is clearly present in this concourse. This is a meaningful contribution to the exceptional collection of new air terminals nationwide.



flexibility and economy while providing a sophisticated new gateway to the city and region.

Throughout the project, visual cues of form, material, scale, and volume distinguish the uses and sequence of spaces to orient the rushing traveler. Circulation cones, terrazzo flooring, yellow glass lanterns, artwork, gate and escalator openings, compression and expansion of height all assist wayfinding.

Natural light is emphasized. The stepped ceiling trays, the angled curtainwall, and a clerestory bounce sunlight and control glare, creating shadow definition and restful spaciousness. Specially commissioned contemporary art projects created by Ohioans animate the moving walks in the pedestrian tunnel and float high in the escalator halls.

Concourse D is a regional air facility – one of the first to be completed in the U. S. system. It will serve the new regional jet market and support the expansion of air service to a greater number of mid-size and small American cities. Concourse D elevates the passenger experience by offering regional travelers the efficiency, comfort, and design quality expected at primary terminals. Passenger-friendly design provides a high level of convenience and integrated facilities ease access for transferring passengers while secure jetways and enclosed turbo-prop walkways provide safe access. Spartan satellite buildings, time-consuming jitney rides, and walks across the open apron are eliminated. The project’s straightforward design, referencing the aesthetics of aviation and Cleveland’s industrial heritage, offers

CREDITS:

SmithGroup, Inc.

Continental Airlines, Inc.

Robert P. Madison
International, Inc.

City of Cleveland,
Department of Port
Control/Cleveland Hopkins
International Airport



GEORGE P. COLEMAN BRIDGE REPLACEMENT

YORKTOWN, VIRGINIA



The adaptive reuse of the existing caissons made possible by innovative geotechnical investigations and analyses, as well as ship collision analyses, resulted in a significant cost and construction timesavings for this project. The float-in of large pre-assembled pieces, complete with everything from the roadway deck to the light poles, resulted in erection pieces, which were very large and heavy, but restored the bridge to service quickly. The speed of the float-in erection eliminated the need for a temporary bridge. The flow of traffic was improved through the installation of electronic toll collection.

CREDITS:

Virginia Department
of Transportation

Parsons Brinckerhoff
Quade & Douglas Inc.

Austin L. Spriggs
Associates

Carson K.C. Mok

To resolve the problem of traffic congestion on the George P. Coleman Bridge over the York River in Yorktown, Virginia, the Virginia Department of Transportation (VDOT) commissioned a study of alternatives and to then design and provide construction services for a new bridge. One of the largest double-swing span bridges in the world, the new bridge was constructed off site and floated in (ready to use) in a stunning, non-stop, nine-day operation.

Winner of the 1997 Grand Conceptor Award of the American Consulting Engineers Council, the 77-foot-wide replacement bridge sits on its original caissons, has four 12-foot traffic lanes, 10-foot breakdown lanes, and features a state-of-the-art toll collection system. The double-swing span permits the passage of ships while maintaining a low profile in deference to neighboring Colonial National Historical Park (the site of the last major battle of the Revolutionary War).

The bridge replacement design minimized impacts on the surrounding historic environment. Like the structure it replaced, the new bridge respects the proximity of Colonial National Historical Park and preserves Revolutionary War shipwrecks on the river bottom. Construction was also designed to avoid adverse impacts on the natural environment including such steps as: minimal land acquisition (only 0.04 acres); protection of wetlands; and coordination with the U.S. Department of Game and Inland Fisheries regarding the peregrine falcon, an endangered species, known to roost on the bridge. Reuse of the caissons helped to ensure the preservation of the site's archaeological importance.



EDMONDS FERRY TERMINAL OVERHEAD PASSENGER LOADING FACILITY

EDMONDS, WASHINGTON

The facility demonstrates innovation in several of its elements: an aesthetic response with a utilitarian structure, performance in both technical and functional effectiveness, and economy. The jury was specifically moved by its design in that it is an “interim” facility, yet its parts can be reused at a future major, multimodal transportation facility and the terminal building can be converted for park or other use. This project encourages consideration for both future economy and sustainability while meeting today’s transportation needs.



CREDITS:

Washington State Ferries

CH2M Hill

Hewitt Architects

The Edmonds Ferry Terminal Overhead Passenger Loading Facility was constructed between 1997 and 1999 to provide an Americans with Disabilities Act compliant passenger loading facility that improves safety and capacity by separating pedestrian and vehicle traffic. The new facility is visually compatible with the picturesque community of Edmonds, Washington.

The new Edmonds Ferry Terminal completes a key element of the water transportation system in Washington and provides links with Community Transit (Snohomish County), Metro Transit (King County), and Amtrak. It not only includes Washington State Ferries (WSF) design elements but also responds to the challenges of building on a narrow, elongated site, to environmental concerns, to Americans with Disabilities Act requirements, and to the aesthetic concerns of the Edmonds community. It was successful in all respects.

The WSF facility adds an important element to WSF’s goal of effective transportation mobility. It is sensitive to both the human and natural environments, and ensures safe boarding by separating the entryways for pedestrians and vehicles. The facility demonstrates innovation in several of its elements, an aesthetic response with a utilitarian structure, performance in both technical and functional effectiveness, and economy.



BRIDGE THE DIVIDE & CAP I-405

PORTLAND, OREGON



In an era when freeway construction still threatens to disrupt the fabric of existing cities and the communities living in them, this project reclaims land long ago taken for the construction of an interstate. These gaps in cities almost never heal, so that the city has elected to take back their town is quite an extraordinary act. As an urban design project, the extension of the existing street grid creates the maximum flexibility of the land it generates and supports the most efficient access for transportation. That it is supported by the Oregon Department of Transportation is a milestone in changing our thinking away from concrete and towards reestablishing communities.

Initiated in spring of 1998, the “Bridge the Divide & Cap I-405” Vision Study assessed the feasibility of recapturing portions of 38 blocks that were destroyed during the construction of Interstate 405 through downtown Portland, Oregon, in the 1960’s. The study was undertaken as a joint effort of the American Society of Landscape Architects and the Landscape Architecture Foundation for the City of Portland Office of Mayor Katz. The project was supported by numerous city bureaus and state agencies, Portland State University, local neighborhoods, and business groups.

The significance of the “Bridge the Divide & Cap I-405” project was that it successfully engaged thousands of citizens to reach consensus on innovative design solutions for the heart of the city. It challenged the design community to exercise all their talents to come up with a more environmentally effective way to create development and handle intense circulation systems through the use of stormwater treatment, wetland areas, and terraced gardens.

The capping of I-405 will provide lessons that can be applied region and community wide. This project can lead to a new generation of public/private partnerships and a new approach to building neighborhoods. Improving the links and connections that tie the neighborhoods together is vital. Transforming a freeway from a barrier to a bridge by leveraging redevelopment is an idea that will make it possible.



CREDITS:

City of Portland
Technical Team Members
McKeever/Morris

RECONSTRUCTION OF I-91 AND CONSTRUCTION OF RIVERFRONT RECAPTURE AMENITIES

HARTFORD, CONNECTICUT

For decades, downtown Hartford was cut-off from the Connecticut River by a railroad and freeways. This project helps to realize the community's dream for recapturing the river. It provides an impressive sculptured stairway down to the river, and opens up the future possibilities of more riverfront walkway and open space. It is a significant step in revitalizing downtown Hartford. It signifies a new way of freeway design not to be a barrier to city building but as a vital linkage to urban activities.



In the early 1980s as the Connecticut Department of Transportation (ConnDOT) was preparing to begin design of the improvements to the I-84/I-91 Interchange in Hartford, a new organization, Riverfront Recapture, Inc. saw that the major highway reconstruction being contemplated provided an opportunity to regain access to the Connecticut River. This group of visionaries conceived a city reunited with its river, long since separated by flood control walls, dikes, the railroad and Interstate 91.

The Riverfront Recapture Amenities consist of an extensive network of plazas, elevators, ramps, and stairs. A deck of lawns, plant beds and trees, Riverfront Plaza is an elevated urban park constructed of decorative pavement, light pink colored precast concrete curbs, walls and seating areas, and ornamental lighting topped by gold domes to mimic the dome of the Old State House.

In plan view the plaza is an acute triangle opening toward the east from the city toward the river. A grand staircase and a public elevator provide access from the Columbus Boulevard and State Street. The success of this project and other recent riverfront development proposals clearly reflect the well conceived notion that Hartford's reunion with its riverfront has brought new life and vitality into Connecticut's capital city.



CREDITS:

Connecticut Department
of Transportation

Berger, Lehman Associates

Carol R. Johnson, Associates

Riverfront Recapture, Inc.

GBQC Architects

Brecher Associates

Bourne Consulting Engineering

CROSSWINDS MARSH

SUMPTER TOWNSHIP, MICHIGAN

Through careful planning, the responsible agency succeeded in the restoration and creation of a much larger wetland, totaling 1000 acres. It has become a new public open space expanding positive recreational uses and education purposes. It demonstrates expansion of transportation facilities need not always destroy the natural environment. With a sensitive ecological approach, it can expand and enhance open space opportunities, and create important habitat.



CREDITS:

Wayne County,
Department of Airports
JJR Incorporated



The creation of Crosswinds Marsh consisted of wetland mitigation for several airport improvements, which when combined, amounted to 1,000 acres, one of the single largest wetland mitigation projects in the country. The focus was to utilize pre-existing natural features, thereby increasing the probability of successful wetland replacement. The general design concept for the project involved impounding the site's primary watercourse, the Disbrow Drain, with a low earthen dam and concrete overflow structure, which in turn created a higher water elevation with varying depths and wetland types behind it. Wetland types at Crosswinds Marsh vary from emergent wetlands, shallow water, deep water, forested, wet meadow, and deep-water aquatic habitat. The design concept used to create these environments represents the most cost-effective technique in creating wetlands.

The site also provided a valuable opportunity for public use. Wayne County committed to a number of passive recreational uses including: 1) interpretive trails (including boardwalks through various wetland systems), 2) a screen house for accommodating large groups, 3) a perimeter access road for horseback riding, 4) canoe trails (designed through the wetlands), and 5) fishing piers. The wetland mitigation site was opened in May 1997 as a Wayne County park. Since then, public use has risen dramatically with over 15,000 visitors recorded in 1998. Of particular interest has been the use of Crosswinds Marsh for educational purposes. The site now is being used as an outdoor classroom by elementary, high school and college-level programs. With its tremendous public response, Metro Airport's solution in Crosswinds Marsh can serve as a model for other airports to solve their own wetland mitigation challenges.

INTERSTATE ROUTE H-3

OAHU, HAWAII



The Interstate Route H-3 Freeway is an outstanding combination of technical innovation, program management that allowed increased mobility relieving congestion spurring economic growth and trade and consideration for environmental responsibility. Not only does the freeway fulfill the needs of the community with its utility and environmental sensitivity, but H-3 provides a direct route for fast and efficient access between the Pearl Harbor Naval Base and Kaneohe Marine Corps Air Station, fulfilling the goal of enhanced national security.

With its soaring viaducts and scenic views, its mile-long tunnels through an ancient volcanic mountain, and its path through some of the most rugged terrain in Hawaii, the Interstate Route H-3 Freeway is the largest public construction project in the state's history. Thirty years and \$1 billion in the making, it progressed through two decades of environmental issues and numerous design and construction challenges, ultimately emerging as an engineering marvel- an outstanding combination of program management, technical ingenuity, and environmental responsibility.

Advanced electronic systems are employed to monitor traffic over the full length of H-3. Devices such as closed-circuit TV cameras, electronic message boards, vehicle detectors, speed recorders and emergency call boxes are continuously controlled and monitored from a central control center. The one-mile long twin-tube trans-Koolau tunnel has one of the most sophisticated control and monitoring systems in the United States.

According to Engineering News Record, Interstate Route H-3 "promises to be one of the most spectacular mountain drives in the nation." Fulfilling the needs of the community and the vision of the engineers who planned, designed, and managed the construction of this project to preserve and protect the rugged and beautiful terrain, H-3 is an outstanding civil engineering achievement. Its utility, environmental sensitivity and beauty will long benefit islanders and visitors alike.

CREDITS:

State of Hawaii, Department of Transportation
 Parsons Brinckerhoff - Hirota Associates
 Engineers Surveyors Hawaii, Inc.
 Nakamura & Tyau, Inc.
 Park Engineering
 Sato & Associates, Inc.
 SSFM Engineers, Inc.
 R.M. Towill Corporation
 Wilson Okamoto & Associates, Inc.



MARITIME OFF RAMP

OAKLAND, CALIFORNIA

The Maritime Off Ramp project economically proved the capability of the U.S. bridge construction industry to construct and erect the first curved orthotropic steel deck bridge. Leading the way for larger orthotropic suspension bridges in the future.

The ingenious erection method permitting the special hydraulic heavy lift (3-365 ton pieces) method in three nights over the busy I-80 freeway is especially commendatory.

This bridge was added to the intersection of the I-80 and I-880 freeways to improve the safety, mobility, economic growth and trade, and national security by providing rapid access to the Maritime area or port area of the City of Oakland, California. The new bridge needed to be made seismically safe, very shallow in depth and be made of durable materials with a 50 to 100 year useful life.

This bridge was included as a supplement to the replacement bridges for the collapsed I-880 "Cypress Viaduct" to improve access to the Maritime area.

Liquefiable soils are below the bridge requiring a very ductile foundation to resist earthquake forces.

The designer used a unique solution of all-steel curved bridge, or orthotropic curved bridge, to achieve the goal of a shallow depth bridge. The steel deck acts as the top flange resulting in a total bridge depth of only seven feet. The steel industry and others have recognized this bridge as an advancement in the bridge design, fabrication, erection and construction. The clean smooth curve of the bridge achieved an aesthetically pleasing shape to the thousands of commuters driving below the bridge.

CREDITS:

California Department
of Transportation (Caltrans)

Kaiser Engineering Inc.

Kiewit-Marmolejo

Candraft Detailing, Inc.

Universal Structural, Inc.

Shaughnessy and Company

Bethlehem Steel



MAIN STREET OVERCROSSING

HILLSBORO, OREGON



The Hillsboro, Oregon, Main Street overcrossing is a unique solution for a light rail transit route crossing over a highway. The span is approximately 250 feet, which allows for future highway expansion and the arch solution provides for an unobstructed span without a center pier, avoiding a potential safety hazard. The arch, which was selected from 14 alternatives, has developed community pride as the gateway entrance to Hillsboro. It saved one million dollars over the preliminary estimate and minimal environmental impacts resulted during construction.

The Main Street Overcrossing is one of four bridges on the six-mile Hillsboro Extension of the Westside Light Rail Transit (LRT) in Portland, Oregon. It stands as a unique landmark for the City of Hillsboro, while serving as a critical element for the Westside LRT system.

The structure features a 78-foot high concrete arch supporting a concrete box girder bridge, which carries a double track light rail line. The concrete box girder bridge was selected because it was economically competitive, practical and aesthetically pleasing. Oriented in this configuration, the Main Street Overcrossing is believed to be the only application of a reinforced concrete arch supporting a major transportation facility.

The Main Street Overcrossing provides an aesthetically pleasing gateway for light rail patrons and roadway users entering the city of Hillsboro. Located along a tree-lined roadway leading into the downtown area, the arch provides a striking entry that is highly visible from the transit and roadway levels. The shallow, concrete superstructure permits the lowest track profile and results in minimal noise impacts to surrounding residential properties. The thin superstructure also enhances the visual aesthetics of the bridge, providing a more pleasing appearance.

CREDITS:

BRW, Inc.



GLENMONT METRORAIL STATION AND PARKING GARAGE

GLENMONT, MARYLAND

Glenmont is a refreshing illustration of the quality of simplicity (minimalism) at a time when architecture seems fascinated with a kind of exploration in chaos. It presents a quiet elegance in iconography, geometric order and materials all together appropriate in use and context. It further represents a somewhat recent continuation in the Metro system development—an innovative forerunner of the re-birth of U.S. public rapid transit.



The Glenmont Station surface complex was designed as a terminal station at the northeast extent of the Glenmont-Shady Grove line of the Washington, D.C., Metrorail system. Surface facilities consist of a bus terminal, a parking garage, and taxi and kiss and ride facilities. A covered pedestrian walkway joins these facilities together, providing weather-protected access to the Metro system. This type of continuous protection is unique to the Washington Metro system, and its recognized success justifies the inclusion of similar facilities in future station construction.

Canopy protection was provided from the parking facilities and bus terminal to the covered escalators and elevator. With requirements for width to avoid overcrowding, height for a sense of space, and adequate ventilation to avoid heat build-up, the dimensions of the canopy were based on the number of busses to be served and their distance from the escalators. The canopy was designed with slender space-frame supports holding clear, tempered glass panels, and is provided with continuous lighting for nighttime operations and security. Metro passengers can reach their bus or garage-parked vehicle with complete overhead weather protection.

Riders' use of the Glenmont Station, after a year in operation, averages 8800 daily weekday trips. Public appreciation of the pedestrian protection has been immediate and vocal, confirming the usefulness of this idea, and the wisdom of including it in the Washington Metropolitan Area Transportation Authority's surface facility criteria.



CREDITS:

Washington Metropolitan Area
Transit Authority

URS Greiner Woodward Clyde

Karn, Charuhas, Chapman & Twohey

Navy Marshall & Associates PC

Harry Weese Associates

Parsons Transportation Group, Inc.

VERMONT/SANTA MONICA/CITY COLLEGE METRO RAIL STATION

LOS ANGELES, CALIFORNIA

The design is an exemplary demonstration of the value of collaboration between art and architecture. The sculptural entrance canopy and lighting create a strong, clear image in the midst of urban clutter. This design pushes the limits and creates a memorable public place.



This Metro Rail station is part of the expanding subterranean public transit system that connects downtown Los Angeles with various outlying areas. This station, located along Vermont Avenue, a major north/south boulevard west of downtown Los Angeles, serves nearby businesses, residences and institutions, such as Los Angeles City College and the Braille Institute.

The station consists of an urban transit plaza from which the station is entered, and the subterranean station which includes ticketing mezzanine and train platform. One of the two entries to the station is marked by a single powerful and sculptural gesture, a large elliptical metal canopy that appears to hover over the station entry. An elevator enclosed within a trapezoidal glass box serves disabled passengers. A row of tall custom light standards painted bright red illuminates the square at night and serves to create a monumental scale and rhythm along the street during the day.

The transition from the plaza into the station is modulated by a glass block skylight over the escalator passage. This space softens the transition from bright sunlight to the muted light of the interior of the station. Reflecting his inquiry into issues related to the project, artist Robert Millar layered thousands of subtly painted questions onto the concrete surfaces of this entranceway. The interior of the station is defined by a series of stainless steel elliptical louvers that recall the shape of the entry canopy, and by extensive stainless steel paneling.



CLIENTS

Los Angeles County Metropolitan
Transportation Authority

Ellerbe Becket, Merhadd Yazdani,
Design Principal

Lynn Capouya Associates

Martin & Huang International

STV/Seelye Stevenson Value &
Knecht

Robert Millar, Artist

Fraser, Utility Planning

Engineering Management
Consulting Team

Horton Lees Lighting Design

Kewit-Shea, A Joint Venture

Timothy Hursley, Photographer

THE CONNECTICUT SCENIC ROADS CORRIDOR MANAGEMENT PLANNING PROJECT

CONNECTICUT



Roads can destroy towns, villages and neighborhoods, or enhance them. The Connecticut Scenic Byways project which developed new approaches to preserve quality and guide change along scenic roads should have far reaching ramifications, through evocative illustrations, clear examples, and simple solutions.

The study proves how growth can be accommodated without destroying the very factors that make a "place" desirable. Distribution and the handbook implementation of model projects are critical to capturing the benefits that this project holds out.

For the last four years, the Connecticut Department of Transportation (ConnDOT) and 14 diverse towns have been the laboratory for promising new approaches to preserve quality and guide change along the state's outstanding scenic roads. In 1993 ConnDOT committed to an unprecedented level of collaborative planning, centered on 14 segments of designated scenic roads, totaling over 100 miles.

The goal: develop workable approaches for managing change along scenic roads. The scenic roads in question transverse a wide range of outstanding areas of strong visual character and landscape types – along the coast of Long Island Sound, through the Litchfield Hills, along the Housatonic Valley, through picturesque mill villages, and across the rural countryside of northeastern Connecticut. These beautiful places are coping with strong development pressures. Road conditions are equally diverse and challenging, involving such conflicting goals as safety vs. beauty, accommodating pedestrians as well as vehicles, and balancing sensitive maintenance with fiscal realities.

The professional team was led by landscape architects, with strong support from community planners, designers and civil engineers who understood Connecticut's particular road design issues and practices. The team's approach was to foster collaboration, actively involving in the effort those organizations, road users, major landowners, and ConnDOT officials whose motivation would be essential to long-term success.



CREDITS.

Connecticut Department of Transportation, Scenic Roads Advisory Committee

Lardner/Klein Landscape Architects, P.C.

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Mary Means & Associates, Inc.

A-N Consulting Engineers, Inc.

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Studio 450

Scenic America

NC SCENIC BYWAYS BOOK

NORTH CAROLINA

This guide is a success both in form and content. The colors, layout, photographs and maps supplement a well-written text that make it an easy-to-use-guide. The 15,000 lucky people who obtained free copies of the brochure will also gain awareness of the State's unique natural and cultural assets as well as some of the North Carolina Department of Transportation's other innovative programs, such as the one that seeds highways with indigenous wildflowers. The booklet is a model of the high quality of work that can be done as a coordinated effort by "in-house" professionals.

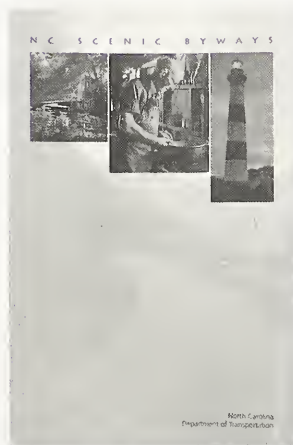
CREDITS:

North Carolina
Scenic Byways Program

North Carolina Department
of Transportation Roadside
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North Carolina Department
of Transportation Public
Information Office

Julie Whitchard, Graphic Artist



From the cascading waterfalls on Whitewater Way to the salty marshes along the Outer Banks Scenic Byway, motorists can experience North Carolina's natural beauty on more than 1,700 miles of scenic byways.

The NC Scenic Byways Book was developed to support the goal of highlighting scenic roads for public viewing and enjoyment while raising awareness for the preservation of North Carolina's unique natural and cultural intrinsic qualities. This new booklet features 44 byways scattered throughout the mountains, piedmont and coastal plain. The routes are designated by the NC Board of Transportation to embody the rich culture and beauty of the state.

The development and design of the book were completed exclusively "in house." Project work and development was a coordinated effort between the Scenic Byways Program Coordinator and the Public Information Office graphic artist. 15,000 books were distributed within the first three months after publication, and it was well received by the public and press. The book was identified by *The New York Times* as "one of the best-looking free booklets published by any state in years" (01/04/98).

CATCHING THE SNOW WITH LIVING SNOW FENCES

MINNESOTA



Snow management is a critical safety and mobility issue in northern climates and reflects a major economic investment for winter cities. The manual, *Catching the Snow with Living Snow Fences*, significantly addresses all of these issues both scientifically and artfully. Based on a thorough study of snow accumulation patterns, the manual provides guidelines for the design of living fences, selection of plant material and management of the corridors. It is an excellent advancement for transportation management in northern areas and promotes safety and accessibility through an ecologically sound mechanism that improves not only snow management but also the overall quality of highway corridors.

Living Snow fences are a low-cost solution to prevent problems from blowing and drifting snow. Strategically placed and properly designed, these living barriers trap snow as it blows across fields, piling the snow up before it reaches the road, waterway, farmstead or community. Until now there has been no comprehensive source of information to help those interested in properly designing, locating, and establishing living snow fences.

Catching the Snow with Living Snow Fences is a state-of-the-art technical guidebook that provides information necessary for the proper design, installation and maintenance of living snow fences and community shelterbelts. For sites that do not support a living snow fence, criteria for the use of structural snow fencing is also provided. Proper site analysis, design and location of living snow fences is crucial because improper positioning and design of living snow fences can potentially cause more severe drifting snow problems and hazards on roadways. Another key feature of the publication is inclusion of a Minnesota Department of Transportation CD-ROM “expert system” for the plant selection entitled Woody & Herbaceous Plants For Minnesota Landscape & Roadsides. The “expert system”, for use with personal computers, aids the living snow fence designer in selecting the right plant, right place, and right function.

CREDITS:

Minnesota Department
of Transportation

University of Minnesota
Extension Service

University of Minnesota Center
for Integrated Resources and
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Minnesota Board of Soil
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Minnesota Department of
Public Safety-Division of
Emergency Management

Minnesota Department
of Natural Resources

Minnesota Department of Agriculture

Minnesota Association of Soil
and Water Conservation Districts

Watsonwan County
Extension Service

Kandiyohi Soil and Water
Conservation District

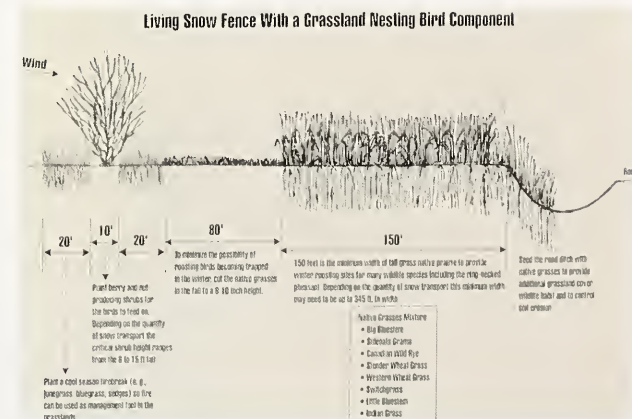
Olmsted County
Highway Department

U.S.D.A. Forest Service

U.S.D.A. Natural Resource
Conservation Service

U.S.D.A. Farm Service Agency

FEMA-Hazard Mitigation
Grant Program



THINKING BEYOND THE PAVEMENT

MARYLAND

Thinking Beyond the Pavement is a Maryland State-wide program to educate transportation professionals to think beyond "capacity," "safety," and "flow." Based on newer and broader concerns, transportation planners are now asked to address the ways in which their projects contribute to the quality of life of the people-in-place. In other words, they now have to be sensitive to local, controversial, and ecological concerns. This thinking tool is designed to give these professionals new tools and skills such as process and collaborative training, different organizational structure and new design skills.

All projects must rely on the competence and skill of those in the trenches and this program greatly increases the possibility that each act of transportation design, planning and implementation contributes to the overall quality of the environment and to the lives of people who live with the results of these projects.

In the fall of 1998, the Maryland State Highway Administration began to assemble transportation planners, engineers, and landscape architects from across the state to provide a teaching tool that would train transportation designers to think differently about design. The result of this effort is Thinking Beyond the Pavement, a presentation focusing on "Context Sensitive Design." The presentation has already been given in several sessions to over 350 transportation engineers, landscape architects and planners in the State of Maryland, as well as through video conferences to five Regional Resource Centers of the Federal Highway Administration.

In teaching a new model for Thinking Beyond the Pavement, the presentation focuses largely on the notion of "Context-Sensitive Design," using many examples of successful projects to demonstrate this concept. Context-Sensitive Design requires the design team to think about the impact the travelway will have on the area it traverses, including the people who live, work or pass through the area.

The team must first ask questions about the need and purpose of the transportation project and then address equally: safety, mobility, access, and the preservation of scenic, aesthetic, historic, environmental, and other community values. Context-Sensitive Design involves a collaborative, interdisciplinary approach in which citizens are part of the design process.

CREDITS:

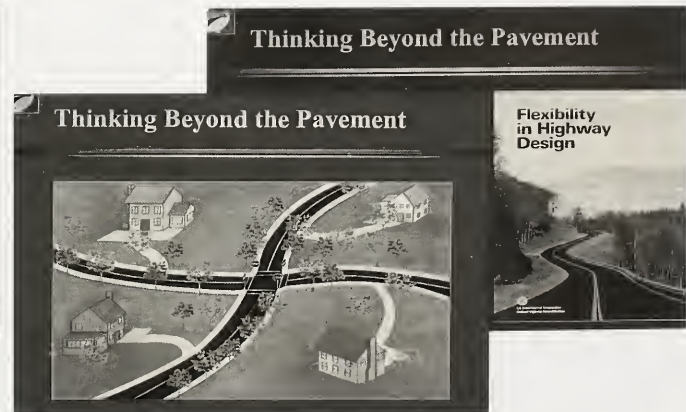
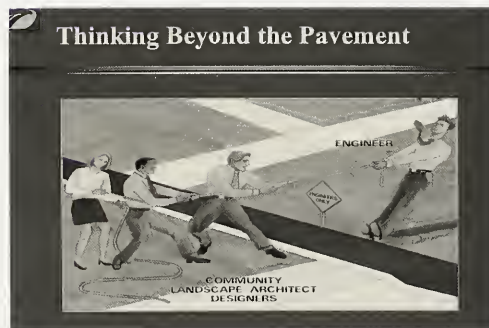
Maryland State Highway Administration

Mahan Rykiel Associates, Inc.

Sverdrup Civil, Inc.

Whitman Reardon Associates

Community Conservation Group, Inc



HISTORIC TERMINAL A REHABILITATION PROJECT – PHASE I

RONALD REAGAN WASHINGTON NATIONAL AIRPORT, WASHINGTON, DC



This project shows a respect for late 40's early 50's Art Deco Style. The quality of execution (materials, lighting, signing, decorative elements) is superb. Finding suitable (adaptive) uses of spaces that enhance the restoration is particularly commendable. The level of documentation of the historic context of the airport for posterity will be extremely useful and informative for succeeding generations. Convincing the airport authority of the value of restoring heritage and providing funding to achieve results – reinforces the value in pursuing such opportunities elsewhere!

Throughout the Metropolitan Washington Airports Authority's 10-year program to modernize and improve Ronald Reagan Washington National Airport, great care has been taken to ensure that the remarkable historic legacy of the Airport is preserved. The Historic Terminal A Rehabilitation Project-Phase I, which was completed in November 1998, is the first of a multi-phased program to redevelop Terminal A back into a fully functional air carrier terminal. Phase I effectively illustrates how seriously the Airports Authority takes its stewardship of this National Register-listed facility and established the standard for the projects to come.

Because of its exceptional historic importance and unique architectural character, the redevelopment of National presents an extraordinary preservation challenge: to save the significant elements of the Airport's past, while building towards a dynamic future.

By carefully studying and investigating original Airport structures, significant historic spaces and architectural elements were identified and protected. Redevelopment plans were then crafted to provide appropriate new functions for the historic facilities. Care was taken to program new uses that were compatible with the original architectural character and that would allow for a high-level



restoration of original historic features. Not only do these restored facilities effectively fulfill their new functions, their historical interests and classic appearance enhance the Airport's unique character, to the fascination and delight of the Airport's passengers, staff, tenants, and visitors.

CREDITS

Metropolitan Washington
Airports Authority

Ronald Reagan
Washington National Airport

Pierce Goodwin Alexander
& Linville

Robinson & Associates

Parsons Management
Consultants

Hitt Contracting, Inc.

Morganti Incorporated

Dick Corporation

Equestrian Forge

FOREST HILLS STATION

FOREST HILLS, NEW YORK

The history of our nation's railroads is a tangible illustration of the evolution of the great "democratic experiment." The Forest Hills Station historic renovation is an excellent example of this grand history and New York's role in the enhancement of it. Adaptation of the landscaping for ADA compliance without altering the historic structure through the use of ramps is a significant contribution worthy of note. The station joins with a string of wonderful railroad stations dotting the Long Island line being returned to useful life.



planned community, the plaza in fact called Station Square.

The station is one of the true remaining gems of New York's historic transportation infrastructure. With the loss of the original Pennsylvania Station, Forest Hills Station has been elevated to perhaps the most prominent of New York's stations from the era.

The station complex was designed in the English Arts and Crafts style by architect Grosvenor Atterbury within a landscape designed by Frederick Law Olmsted, the renowned designer of Central Park. Forest Hills Gardens was designed as a garden community, specifically planned around this transportation facility as its focal point and unifying element.

Amongst the many events that have occurred at the station was Teddy Roosevelt's "100% All American" speech initiating his second Presidential campaign.

The Forest Hills station was constructed in 1911 and, by the early 1990's was in desperate need of significant restoration. Because of the historic significance and architectural quality of the station house exterior, the station had been nominated by the New York State Historian Preservation Office for Landmark Status. All building elements, whether new construction, renovation or restoration, were required to retain the historic character of the site. The station was originally conceived as the focus and an integral part of the adjacent



CREDITS:

Long Island Rail Road
Urbahn Associates, Inc.
Daniel Frankfurt, PC

THE PRESERVATION AND RESTORATION OF THE GEORGIAN COURT BRIDGE

LAKEWOOD, NEW JERSEY



Significant and faithful restoration of historic structure — extensive research and painstaking execution — recognition of its place in the region over time. Value in preserving our heritage regardless of cost or scale; encourages similar efforts elsewhere. Role of bridge in urban context — reinforcing overall quality of the physical setting.

The Georgian Court Bridge is a unique brick arch structure constructed in 1899 in Lakewood, New Jersey to carry North Lake Drive over a lagoon connected to Lake Carasaljo. The structure was constructed as part of a large estate, called Georgian Court, for George Jay Gould, a railroad tycoon. Architect Bruce Price, a noted architect of the time, designed the structure in the Georgian style consistent with the estate.

This project is a classic case for the application of the Secretary of the Interior's Standards for the Treatment of Historic Properties. Where possible preservation of materials was maintained.

The bridge was returned almost exactly to the look from the period called the "Gilded Age" when it was originally constructed, thus matching the remainder of the estate. Restoration was used where preservation was not practical. Rehabilitation and reconstruction were also used where applicable. The work was reviewed and approved by the State Historic Preservation Office as being consistent with the standards.



CREDITS:

Freeholders of Ocean County
Jenny Engineering Corporation
Ocean County Engineering
Department

“CELEBRATE THE CENTURY EXPRESS”

WASHINGTON, DC

Celebrate the Century Express is an innovative educational program sponsored by the U.S. Postal Service. A specially designed and decorated train is traveling to over 100 cities and towns across the U.S. with child-friendly educational materials that describe the postal service and its relationship to the train system all told through the sense of postage stamps. It is an exciting way to introduce young people to the heritage of stamps, the transportation implications of the postal service, and take advantage of the contact to also educate children about train safety.



The “Celebrate The Century Express” is a once-in-a-lifetime, old-fashioned whistle-stop train tour. The train which consists of four specially designed cars and a locomotive, is a program created to celebrate the heritage of America through stamp collecting and enhance the awareness level

of historic treasures around the United States. As the world enters the 21st Century, the Postal Service is able to reflect with pride on all of the accomplishments made over the past 100 years. From Rural Free Delivery to Express Mail, the Postal Service has experienced a world filled with dynamic changes, technological progress and multi-cultural diversity in the 20th century. The Express train provides an opportunity to celebrate the heritage of our diversified communities and bring people together.

Additionally, the Postal Service recognizes that education is the foundation of the Celebrate The Century (CTC) program. Nearly 300,000 classrooms nationwide have enrolled in the CTC educational program. Special educational kits for the Express train have been sent to participating classrooms to provide teachers with creative learning aids to prepare students for the train tour. The Educational Kit contains a seven-page Teacher’s Handbook, featuring a sketch of each car and fun facts about the CTC Express; a Student Activity Book with special train-related classroom activities; a folder highlighting the Celebrate The Century Express; and a ten-minute introductory video featuring “Mailed May,” a young girl who was mailed to her grandparents via Railway Post Office car.

CREDITS:

United States Postal Service

National Passenger Railroad Corporation (Amtrak)

Fedor Expositions, Inc.



THE BIKE STOPS HERE

LOS ANGELES, CALIFORNIA



This project demonstrates what fresh new way of designing an ordinary streetscape element can transform it into something extraordinary, and gives the cityscape beauty, surprise and new sense of identity.

The Bike Stops Here, a bicycle parking project was a collaborative effort of the City of Los Angeles Department of Transportation (LADOT) and the Southern California Institute for Architecture (Sci-Arc). The project was conceived by LADOT staff and executed by Sci-Arc, with funding from the City of Los Angeles Community Redevelopment Agency's Downtown Cultural Trust Fund.

The Bike Stops Here integrates the concepts of standard bicycle parking and innovative design to add to the aesthetic landscape of Downtown Los Angeles. Racks were designed and fabricated for 10 sites throughout the Downtown by Sci-Arc students.

As a result of this small design project, several requests have been made to add "art" bike racks to streetscape projects throughout Los Angeles. Currently two projects have been funded and included artists in the development of bicycle racks as a part of the streetscape. In addition, a few private commissions have been made by building managers and developers who seek a more aesthetic solution to providing bicycle racks on their property.

CREDITS:

City of Los Angeles,
Department of Transportation

Southern California Institute of
Architecture

Community Redevelopment Agency
of the City of Los Angeles



MTA METRO ART: PUBLIC ART PROGRAMS

LOS ANGELES, CALIFORNIA

This comprehensive public art project is perhaps the most ambitious in the country, including as it does the widest variety of styles, forms, materials and ideas. The MTA Metro Arts program is unique in bringing function and art together in a fashion to delight the eye and soul, humanizing what is often seen as mundane transit. While stations within the Metro Rail system may be similar in terms of engineering – structural, electrical, mechanical – the artists and architects have made each one unique and appealing, fitting wonderfully into the community in which it is located.



as models in the fields of both transportation and public art. In addition to a host of commissioning programs (over 175 artists have been commissioned for a wide variety of both temporary and permanent transit related projects) the department has developed a very active Conservation Program and Docent Tour Program.

Described as “one of the most imaginative public art programs in the country” and one of the “World’s 100 Best Design Ideas,” MTA Metro Art has received several design and artistic excellence awards. It is recognized for its interdisciplinary approach, the broad range of artists selected, and its innovative and successful community involvement processes.

Strong support has been demonstrated by over \$1.5 million in municipal and corporate contributions and by the respect and care given the works by the public. All artworks are created especially for the transit system and must meet safety, security, accessibility, maintenance, and environmental requirements. Artists are selected through a highly respected peer review process with community input.



Recognizing that art can bring a touch of humanity to an often mundane commute, the Los Angeles County Metropolitan Transportation Authority commissions artists to incorporate art into a wide array of transportation projects. Celebrating its 10th Anniversary this year, MTA Metro Art has developed a number of innovative public art programs which are often held up

CREDITS

Permanent Art Programs

MTA Metro Art
MTA Construction
Catellus Development Corporation
Southern California
Regional Rail Authority

Temporary Art Programs

MTA Metro Art
MTA Construction
MTA Operations
Museum of Contemporary Art (MOCA)
The Getty Center
Poetry Society of America

Docent Tour Program

MTA Metro Art
Metro Art Volunteer
Docent Council

Informational Materials

MTA Metro Art
SOS Design
Tom Bonner Photography

YOUGH RIVER TRAIL BRIDGE

OHIOPILE STATE PARK, PENNSYLVANIA

This is simply a very handsome pedestrian bridge, built with simple components and rising to the level of elegance through excellent design. Light and delicate as it bounds effortlessly across the river, its transparent form is a pure expression of the economical means used to construct it: Existing concrete piers, repetitive bow-string trusses made of weathering steel and a wooden walking deck suspended between each pair of trusses, the bridge charismatically harmonizes with the landscape. This project exemplifies how a systematically engineered structure can be intrinsically beautiful.



One of the most popular transportation “recycling efforts” is Rails-Trails. Rails-Trails is a national endeavor that acquires abandoned railroad corridors and creates multi-purpose public paths. Rails-Trails provide excellent recreation and physical fitness opportunities, preserve diminishing open space and create natural corridors for wildlife. Studies have shown that these trails significantly boost the economy of the towns through which they pass as users spend money for food, beverage, lodging, bicycle rentals, souvenirs, and other related items.

The Yough River Trail Bridge project was needed to complete the missing link in the state owned portion of the trail. For cost effectiveness and overall efficiency, the selection of a prefabricated bow string truss style pedestrian bridge was used as the basis for design. Weathering steel was chosen for the truss because of its low maintenance characteristics and its “natural” color; the deck is constructed with wooden planks.

Bridge support utilizes the existing concrete piers with new elevated weathering steel pier bents. This combination of piers and bents provides an improved view of the river from the adjacent river and land areas, yet still gives the bridge that vintage railroad look which blends into the natural environment and meets the clearance requirements over the state roadway. This bridge enhances the natural environment without impeding or detracting from the landscape, local history, or especially the scenic view of the river.

CREDITS:

Commonwealth of Pennsylvania,
Department of Conservation and
Natural Resources, Bureau of
Facility Design and Construction

WHITMAN ROUNDHOUSE PARK

WHITMAN, MASSACHUSETTS

The purpose of the Whitman Roundhouse Park project was to create an archaeological interpretive park at the former site of an 1880s railroad steam locomotive servicing facility. This facility is located adjacent to the Whitman commuter rail station on the Massachusetts Bay Transportation Authority's newly restored Old Colony rail line between Boston and Plymouth, Massachusetts.

The project goals were to carefully expose the archaeological remains of the structures on the site, to preserve remains through conservation and selective reconstruction, and to create an interpretive program. The project includes an historically appropriate landscaping scheme and an educational panel explaining the history and technology of the site.

The Whitman Roundhouse Park is significant for the degree that it has enhanced the natural and human environment at the Whitman MBTA commuter rail station. The clean up of the original vacant dump site, sensitive environmental treatment of the adjacent riverbank, and the inclusion of indigenous plant species is a significant enhancement of the pre-construction natural environment.

The park is also significant as an innovative historic preservation/public history project that interprets industrial archaeology through landscaping. It is a major new attraction and source of pride for the community, and a unique regional historic resource. It is a major educational resource with the potential to inform and educate commuters, local and regional school children, and private citizens about the transportation history and technology of the region.

CREDITS:

Massachusetts Bay Transportation Authority

The Public Archaeology Laboratory, Inc.

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J. F. White Contracting Company

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Too often archeology in transportation projects ends up as reports and artifacts in storage. Here, commuters experience how the past can give continuity to us today, for the incorporation of an historical archaeological site into an urban park, brings to life the story of Whitman's industrial history.



MAPS OF THE NATION'S CAPITAL THROUGH THE CENTURIES

WASHINGTON, DC



This project tells the story of America's Capital through mapping patterns embodying the city's history of development and transportation first established 200 years ago by the L'Enfant plan. This has been Joseph Passonneau's "labor of love" for many years and it's a labor that has been educational for citizens and professionals alike. The maps are beautifully drawn, graphically expressive and, above all, useful. They represent one of the best resources available showing the critical interrelation between urban history, street networks and transportation corridors, neighborhoods, buildings and land use.

These maps are at the heart of an exhibition and a book, *WASHINGTON through TWO CENTURIES* in *MAPS and IMAGES, The History and Future of Urban Development and Travel in the L'Enfant City and in the National Capital Region*. The maps, and the exhibition and book that are based on the maps, show how our National Capital and by extension all cities have been shaped by changing transportation technologies.

Our problems are to design urban transportation investments that satisfy the wider objectives of our citizens, and to fit modern arteries carrying large volumes of high-speed traffic into urban and valued natural landscapes, sensitively. These problems can only be solved by transportation professionals, elected city officials, city planners, and affected citizens working together. By putting these problems in their historic context, these maps may contribute to that joint effort.

The Washington, D.C., maps are based on work done for the Chicago Crosstown Corridor. This 22-mile long by one mile wide corridor was mapped, with every building drawn and color-coded by use, at a scale of 1" = 200'. Critical sections were drawn in axonometric (3-dimensional) projection. Checking against these maps, citizens could determine how alternative transportation proposals affected their homes and communities. The maps of the center of Washington were begun by University of Maryland students on contract in the summer of 1973, in preparation for a year's urban design study of the Nation's Capital. Work on the maps was continued by professional architects/engineers, describing the city at six different periods in its history. They were completed in 1998.

CREDITS:

Joseph Passonneau & Partners



CREDITS

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